FIG.1

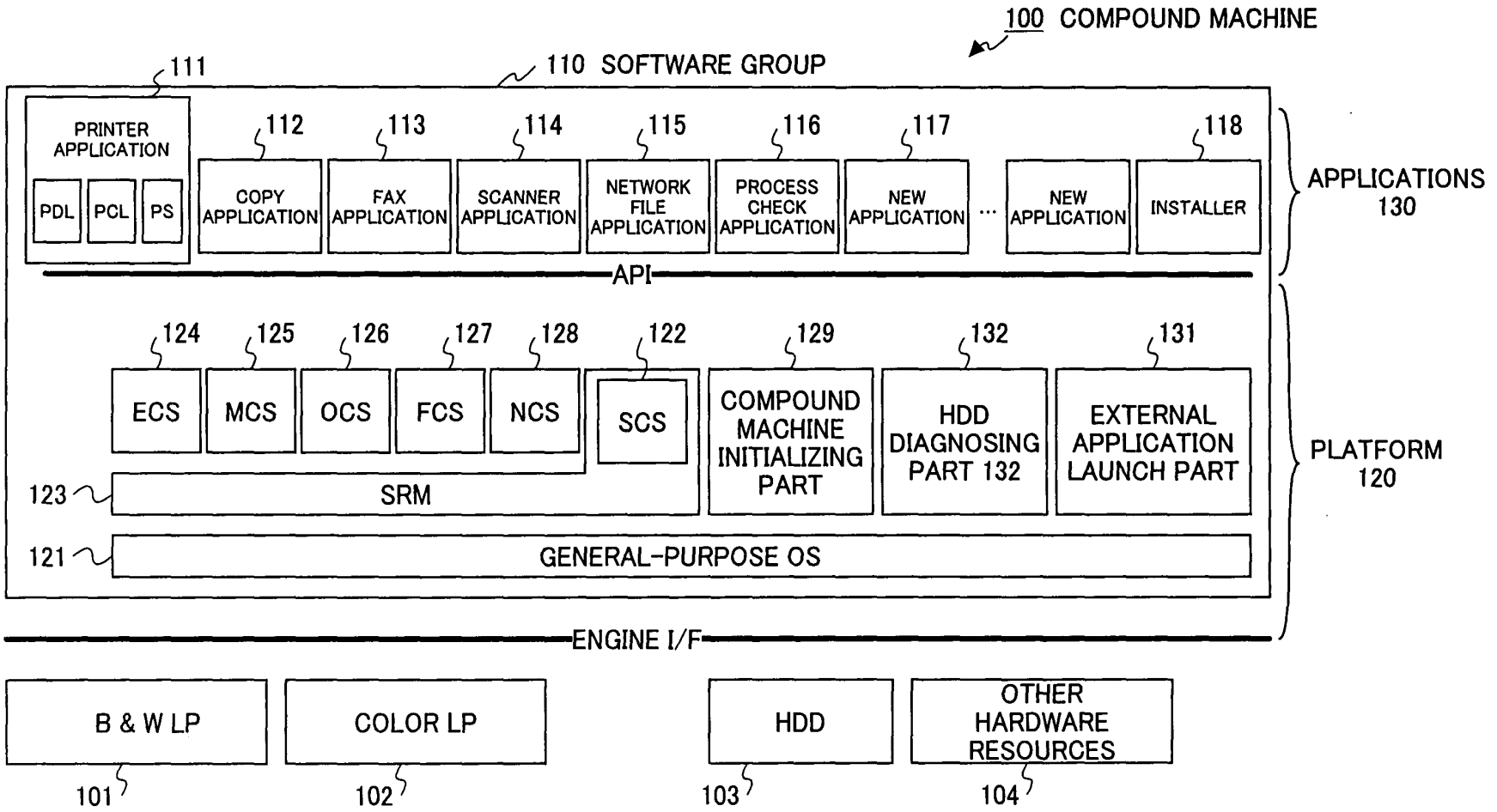

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FIG.2

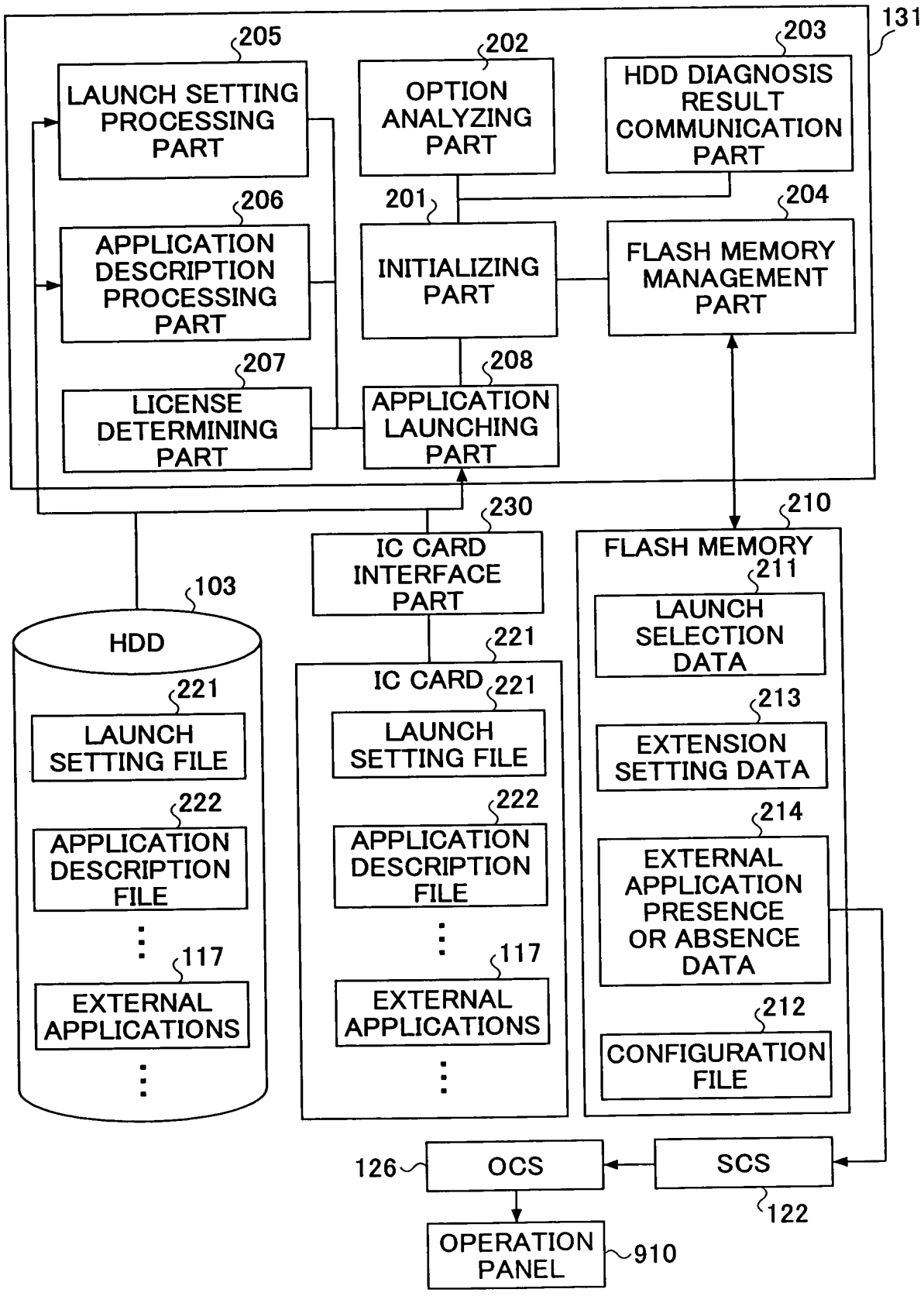

131
205
LAUNCH SETTING PROCESSING PART
202
OPTION ANALYZING PART
203
HDD DIAGNOSIS RESULT COMMUNICATION PART
206
APPLICATION DESCRIPTION PROCESSING PART
201
INITIALIZING PART
204
FLASH MEMORY MANAGEMENT PART
207
LICENSE DETERMINING PART
208
APPLICATION LAUNCHING PART
230
IC CARD INTERFACE PART
210
FLASH MEMORY
211
LAUNCH SELECTION DATA
213
EXTENSION SETTING DATA
214
EXTERNAL APPLICATION PRESENCE OR ABSENCE DATA
212
CONFIGURATION FILE
103
HDD
221
LAUNCH SETTING FILE
222
APPLICATION DESCRIPTION FILE
117
EXTERNAL APPLICATIONS
IC CARD
221
LAUNCH SETTING FILE
222
APPLICATION DESCRIPTION FILE
117
EXTERNAL APPLICATIONS
126
OCS
SCS
122
OPERATION PANEL
910

FIG.3

LAUNCH SETTING FILE

PROGRAM NAME	xx.xxx.sample
PROGRAM NAME	yy.yy.test
⋮	

FIG.4

APPLICATION DESCRIPTION FILE

PROGRAM NAME	xx.xxx.sample
DISPLAY NAME	SAMPLE APPLICATION
VERSION	1.0
VENDOR NAME	ABC COMPANY
EXECUTION COMMAND	sample_apl -a 1
INSTALL MEDIUM NUMBER	1
TOTAL NUMBER OF INSTALL MEDIUMS	2
TOTAL NUMBER OF INSTALLED INSTALL MEDIUMS	1
INSTALL DATE AND TIME	2002.5.20
LICENSE KEY	1122-111-333

FIG.5

LAUNCH SELECTION DATA:	HDD/IC CARD (CAN SELECT EITHER OR BOTH)
EXTENSION SETTING DATA:	LAUNCH/NOT LAUNCH
EXTERNAL APPLICATION PRESENCE OR ABSENCE DATA :	PRESENT/ABSENT

FIG.6

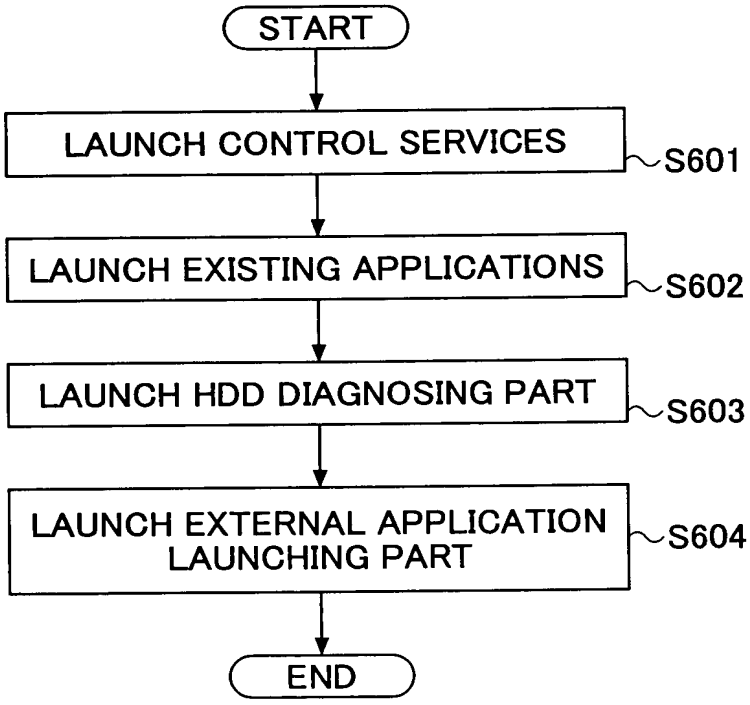


FIG.7

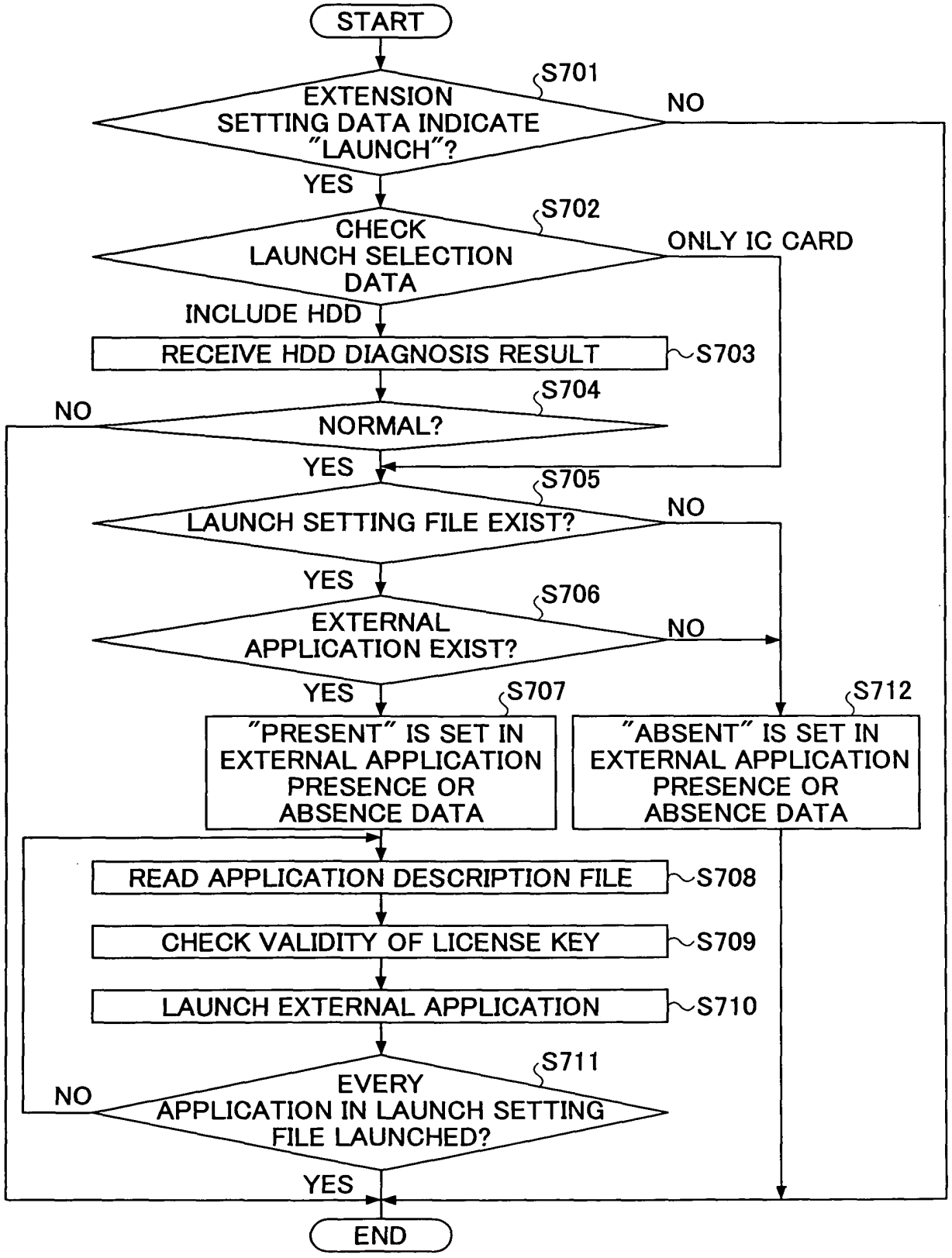

START
S701
EXTENSION SETTING DATA INDICATE "LAUNCH"?
NO
YES
S702
CHECK LAUNCH SELECTION DATA
ONLY IC CARD
INCLUDE HDD
RECEIVE HDD DIAGNOSIS RESULT
S703
S704
NO
NORMAL?
YES
S705
LAUNCH SETTING FILE EXIST?
NO
YES
S706
EXTERNAL APPLICATION EXIST?
NO
YES
S707
"PRESENT" IS SET IN EXTERNAL APPLICATION PRESENCE OR ABSENCE DATA
S712
"ABSENT" IS SET IN EXTERNAL APPLICATION PRESENCE OR ABSENCE DATA
READ APPLICATION DESCRIPTION FILE
S708
CHECK VALIDITY OF LICENSE KEY
S709
LAUNCH EXTERNAL APPLICATION
S710
S711
NO
EVERY APPLICATION IN LAUNCH SETTING FILE LAUNCHED?
YES
END

FIG.8

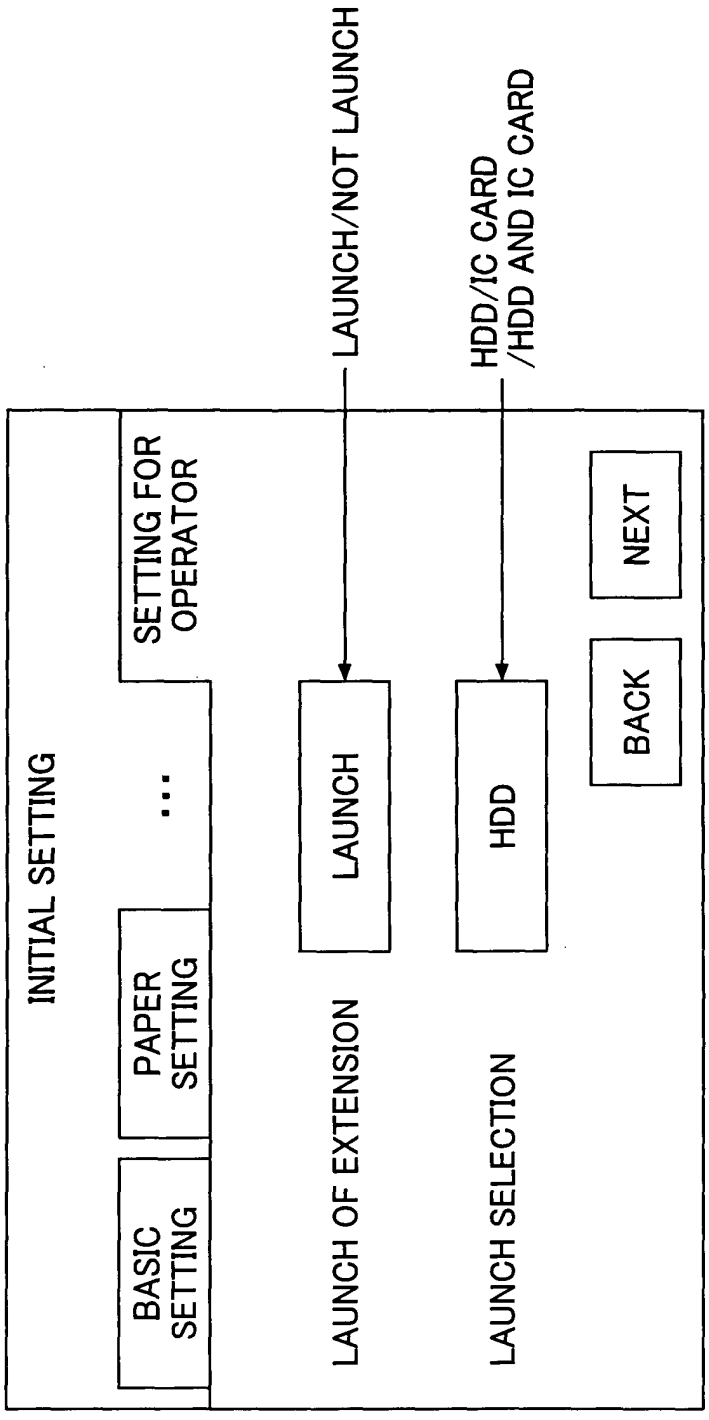

INITIAL SETTING
BASIC SETTING
PAPER SETTING
...
SETTING FOR OPERATOR
LAUNCH OF EXTENSION
LAUNCH
LAUNCH/NOT LAUNCH
LAUNCH SELECTION
HDD
HDD/IC CARD /HDD AND IC CARD
BACK
NEXT

FIG.9

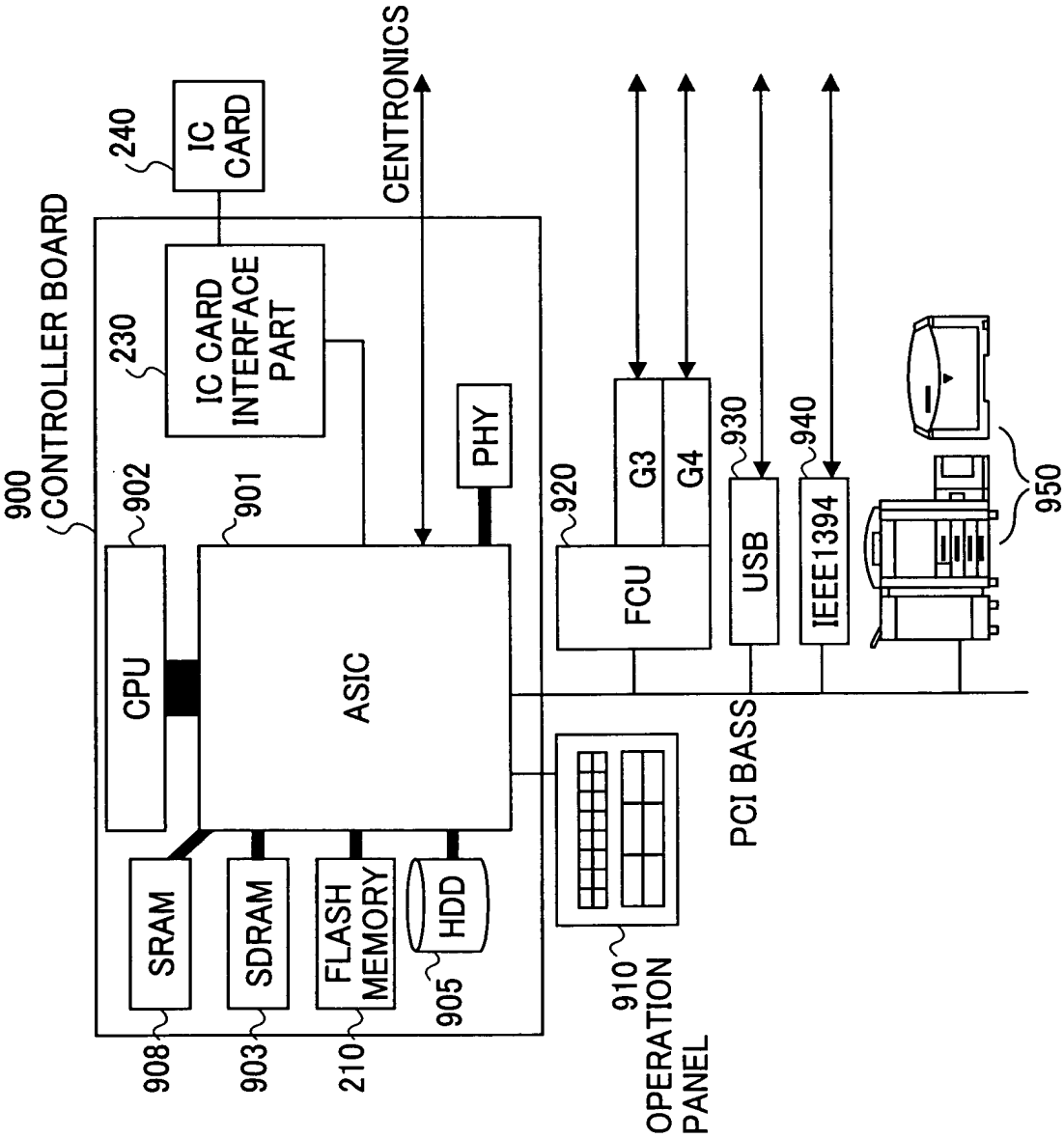

900
CONTROLLER BOARD
240
IC CARD
CENTRONICS
230
IC CARD INTERFACE PART
PHY
902
901
920
G3
G4
930
940
CPU
ASIC
FCU
USB
IEEE1394
950
SRAM
SDRAM
FLASH MEMORY
HDD
905
910
OPERATION PANEL
PCI BASS
908
903
210

FIG.10

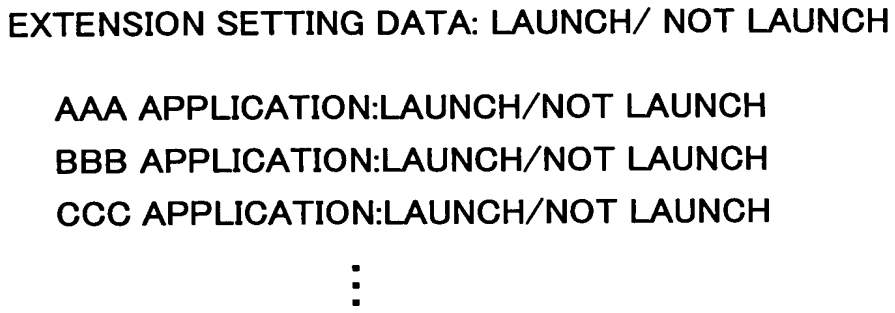

EXTENSION SETTING DATA: LAUNCH/ NOT LAUNCH
AAA APPLICATION:LAUNCH/NOT LAUNCH
BBB APPLICATION:LAUNCH/NOT LAUNCH
CCC APPLICATION:LAUNCH/NOT LAUNCH

FIG.11

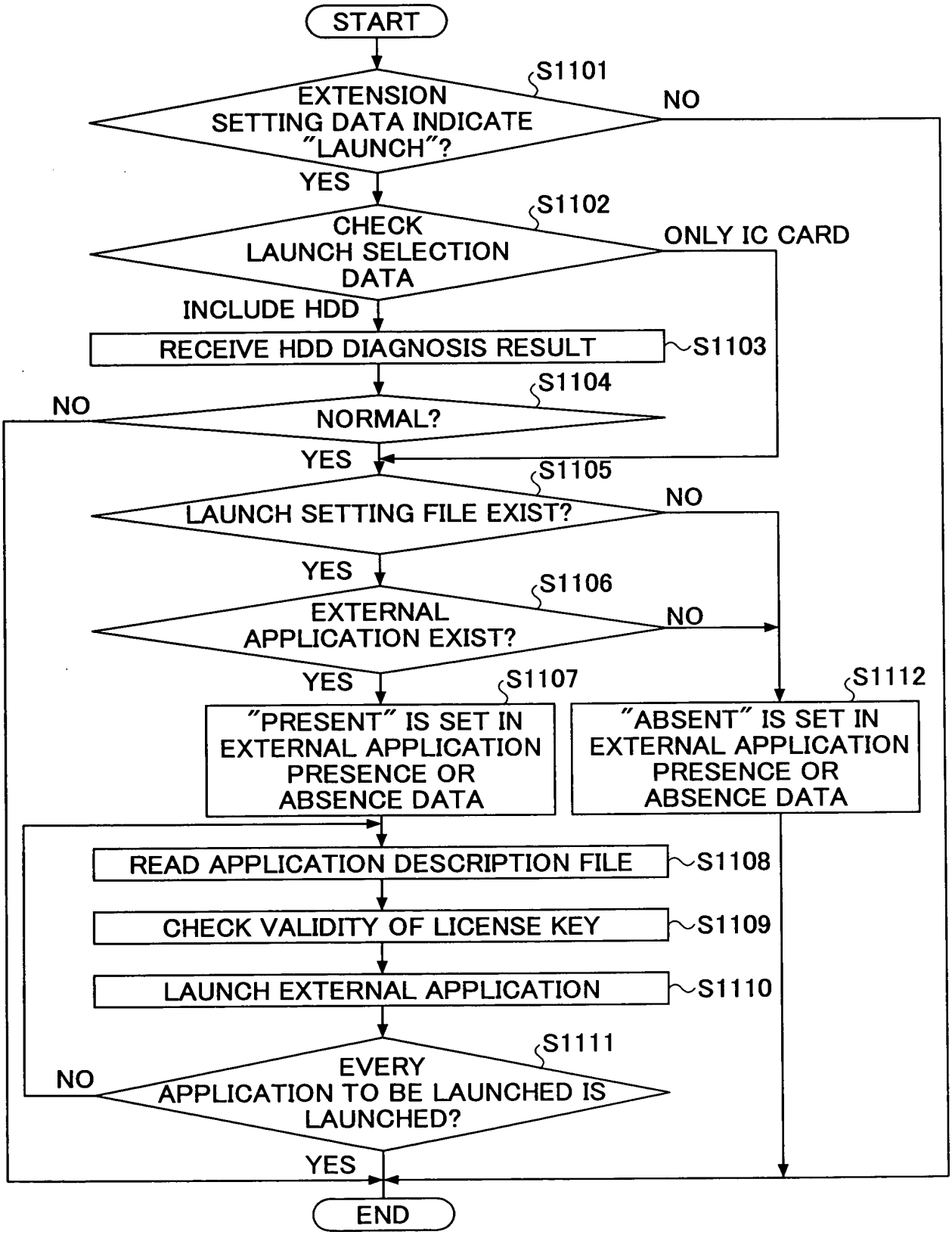

START
S1101
EXTENSION SETTING DATA INDICATE "LAUNCH"?
NO
YES
S1102
CHECK LAUNCH SELECTION DATA
ONLY IC CARD
INCLUDE HDD
RECEIVE HDD DIAGNOSIS RESULT
S1103
S1104
NO
NORMAL?
YES
S1105
LAUNCH SETTING FILE EXIST?
NO
YES
S1106
EXTERNAL APPLICATION EXIST?
NO
YES
S1107
"PRESENT" IS SET IN EXTERNAL APPLICATION PRESENCE OR ABSENCE DATA
S1112
"ABSENT" IS SET IN EXTERNAL APPLICATION PRESENCE OR ABSENCE DATA
READ APPLICATION DESCRIPTION FILE
S1108
CHECK VALIDITY OF LICENSE KEY
S1109
LAUNCH EXTERNAL APPLICATION
S1110
S1111
EVERY APPLICATION TO BE LAUNCHED IS LAUNCHED?
NO
YES
END

FIG.12

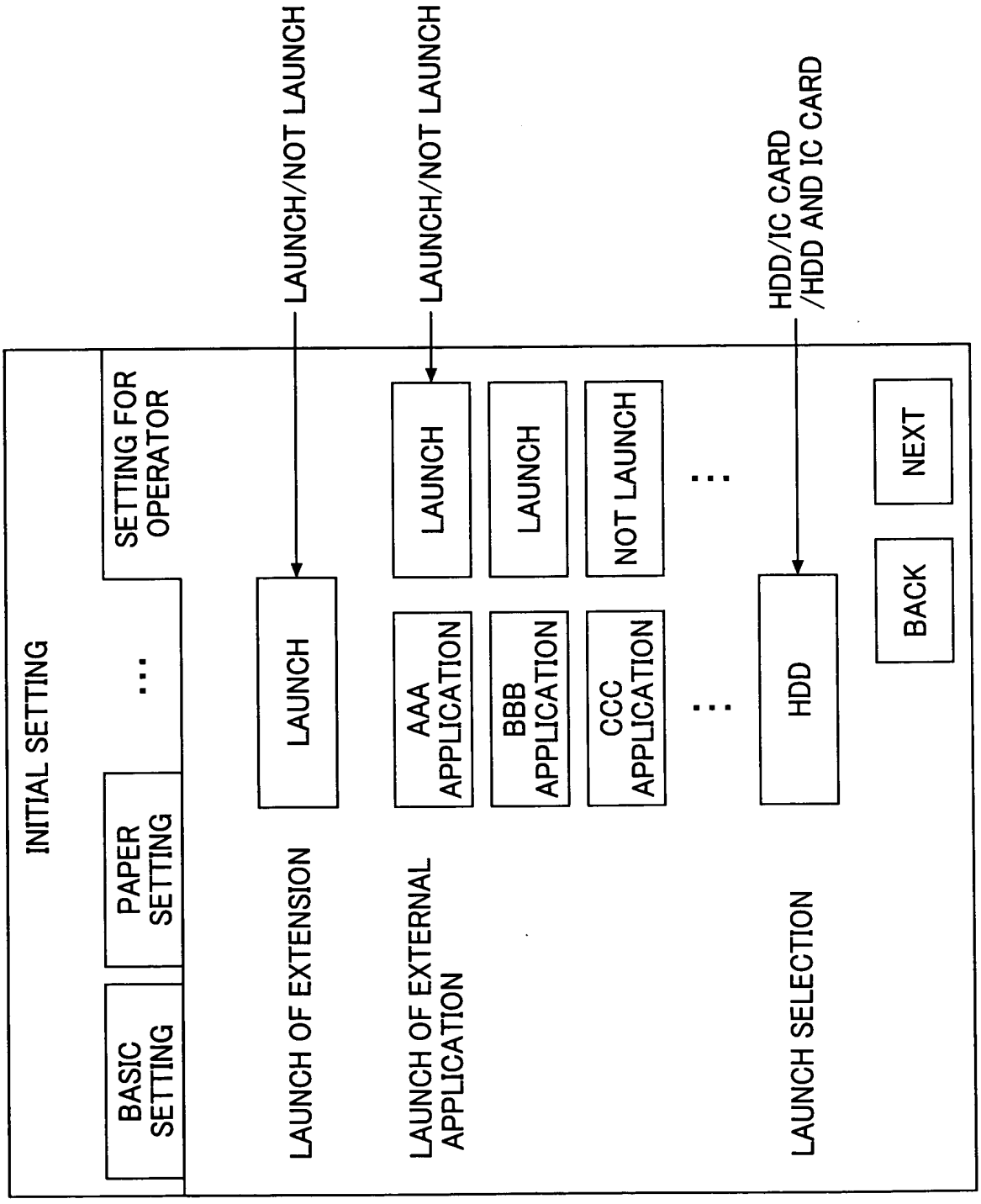

INITIAL SETTING
BASIC SETTING
PAPER SETTING
...
SETTING FOR OPERATOR
LAUNCH OF EXTENSION
LAUNCH
LAUNCH/NOT LAUNCH
LAUNCH OF EXTERNAL APPLICATION
AAA APPLICATION
BBB APPLICATION
CCC APPLICATION
LAUNCH
LAUNCH
NOT LAUNCH
LAUNCH/NOT LAUNCH
LAUNCH SELECTION
HDD
HDD/IC CARD /HDD AND IC CARD
BACK
NEXT

FIG.13

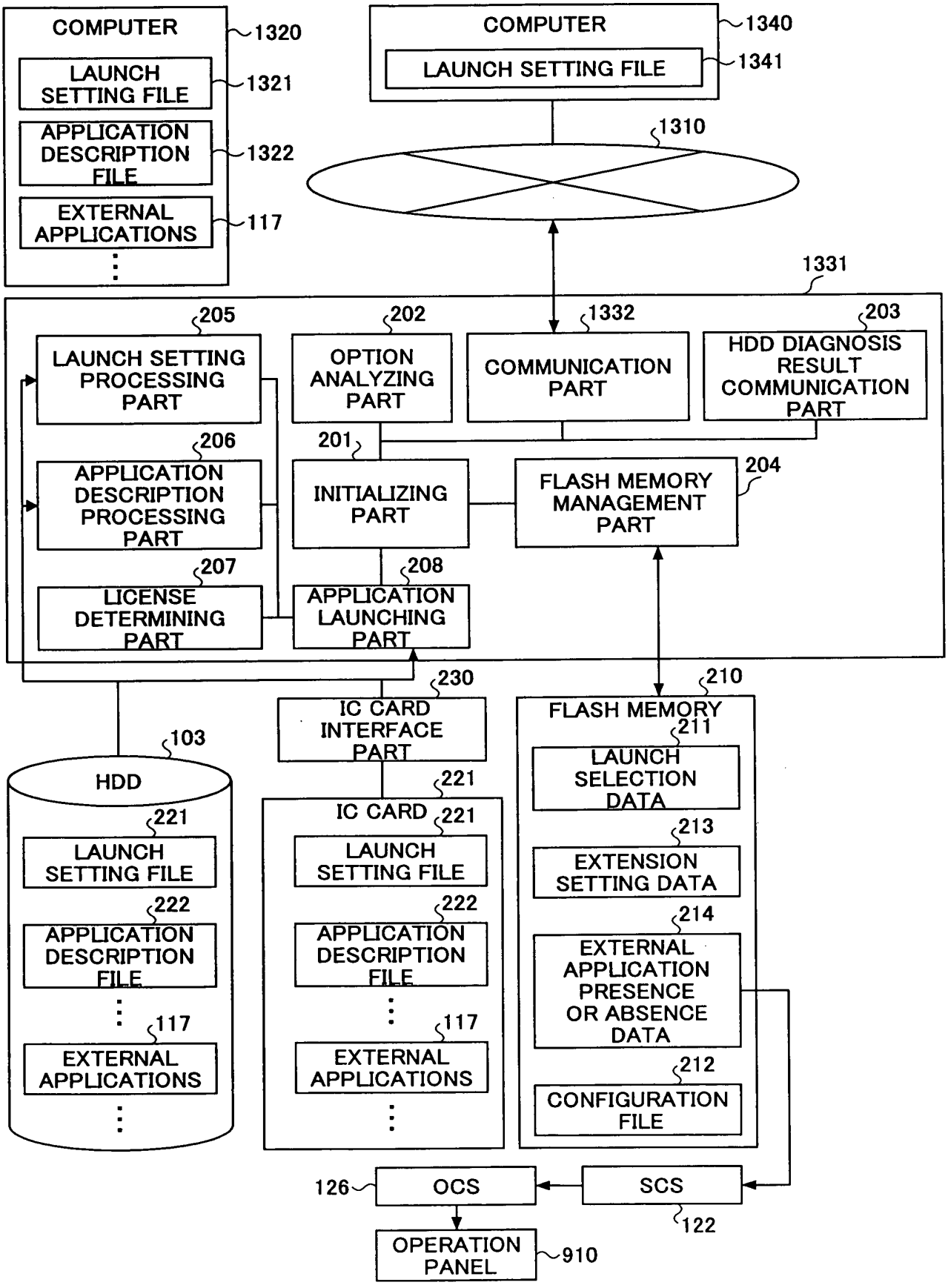

COMPUTER
1320
LAUNCH SETTING FILE
1321
APPLICATION DESCRIPTION FILE
1322
EXTERNAL APPLICATIONS
117
COMPUTER
1340
LAUNCH SETTING FILE
1341
1310
1331
205
LAUNCH SETTING PROCESSING PART
202
OPTION ANALYZING PART
1332
COMMUNICATION PART
203
HDD DIAGNOSIS RESULT COMMUNICATION PART
206
APPLICATION DESCRIPTION PROCESSING PART
201
INITIALIZING PART
204
FLASH MEMORY MANAGEMENT PART
207
LICENSE DETERMINING PART
208
APPLICATION LAUNCHING PART
230
IC CARD INTERFACE PART
210
FLASH MEMORY
211
LAUNCH SELECTION DATA
213
EXTENSION SETTING DATA
214
EXTERNAL APPLICATION PRESENCE OR ABSENCE DATA
212
CONFIGURATION FILE
103
HDD
221
LAUNCH SETTING FILE
222
APPLICATION DESCRIPTION FILE
117
EXTERNAL APPLICATIONS
IC CARD
221
LAUNCH SETTING FILE
222
APPLICATION DESCRIPTION FILE
117
EXTERNAL APPLICATIONS
126
OCS
SCS
122
OPERATION PANEL
910

FIG.14

LAUNCH SETTING FILE

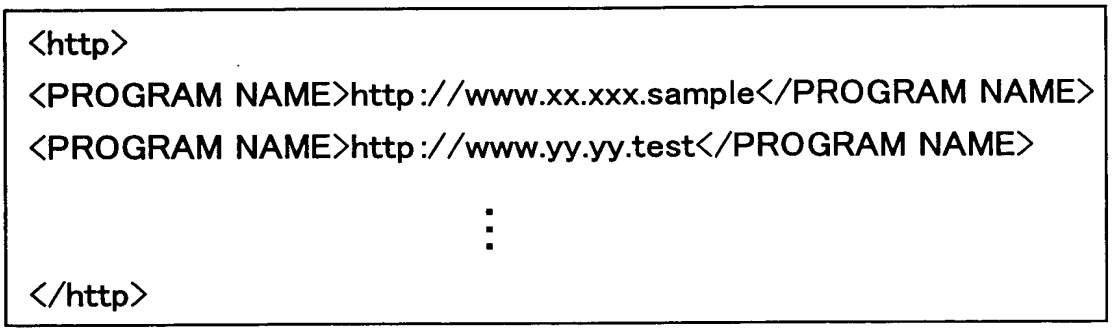


FIG.15

LAUNCH SELECTION DATA :
HDD/IC CARD/http/ftp (ONE OR MORE CAN BE SELECTED)

LAUNCH SETTING FILE ADDRESS(http) http://www.xxxx.yyy.launch.conf

LAUNCH SETTING FILE ADDRESS(ftp) ftp://ftp.xxxx.zzzz.launch.conf

FIG.16

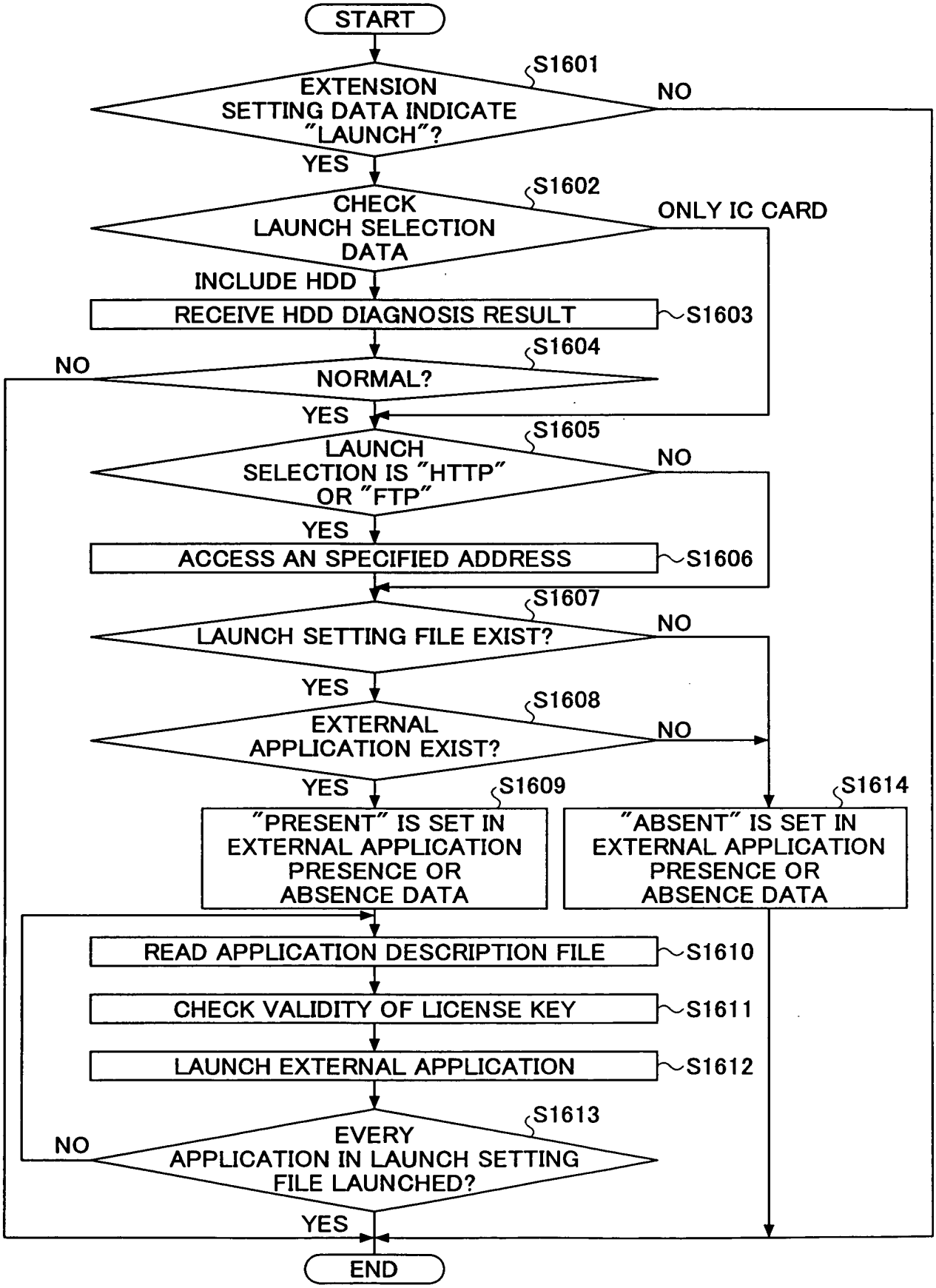

START
S1601
EXTENSION SETTING DATA INDICATE "LAUNCH"?
NO
YES
S1602
CHECK LAUNCH SELECTION DATA
ONLY IC CARD
INCLUDE HDD
RECEIVE HDD DIAGNOSIS RESULT
S1603
S1604
NORMAL?
NO
YES
S1605
LAUNCH SELECTION IS "HTTP" OR "FTP"
NO
YES
ACCESS AN SPECIFIED ADDRESS
S1606
S1607
LAUNCH SETTING FILE EXIST?
NO
YES
S1608
EXTERNAL APPLICATION EXIST?
NO
YES
S1609
"PRESENT" IS SET IN EXTERNAL APPLICATION PRESENCE OR ABSENCE DATA
S1614
"ABSENT" IS SET IN EXTERNAL APPLICATION PRESENCE OR ABSENCE DATA
READ APPLICATION DESCRIPTION FILE
S1610
CHECK VALIDITY OF LICENSE KEY
S1611
LAUNCH EXTERNAL APPLICATION
S1612
S1613
EVERY APPLICATION IN LAUNCH SETTING FILE LAUNCHED?
NO
YES
END

FIG.17

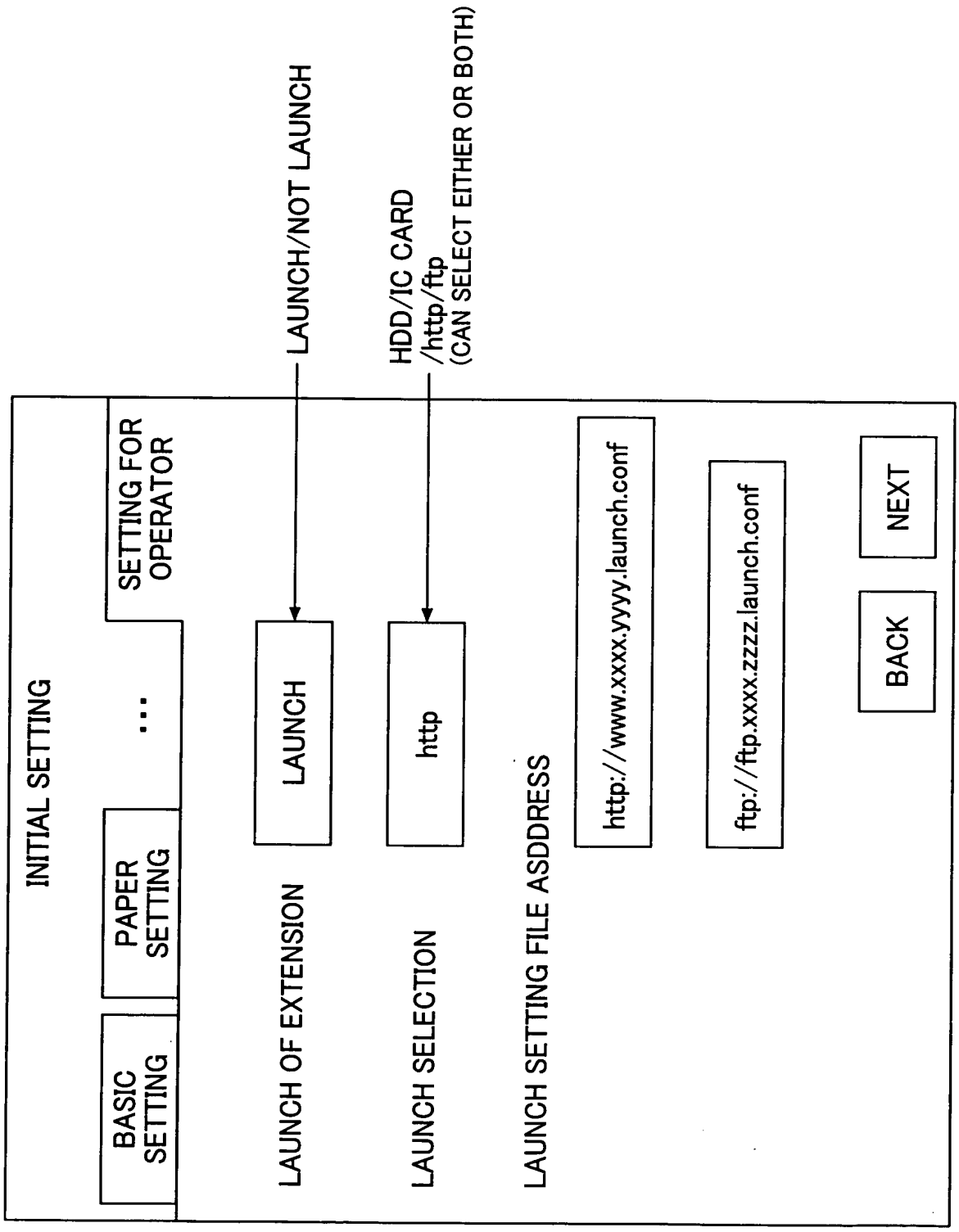
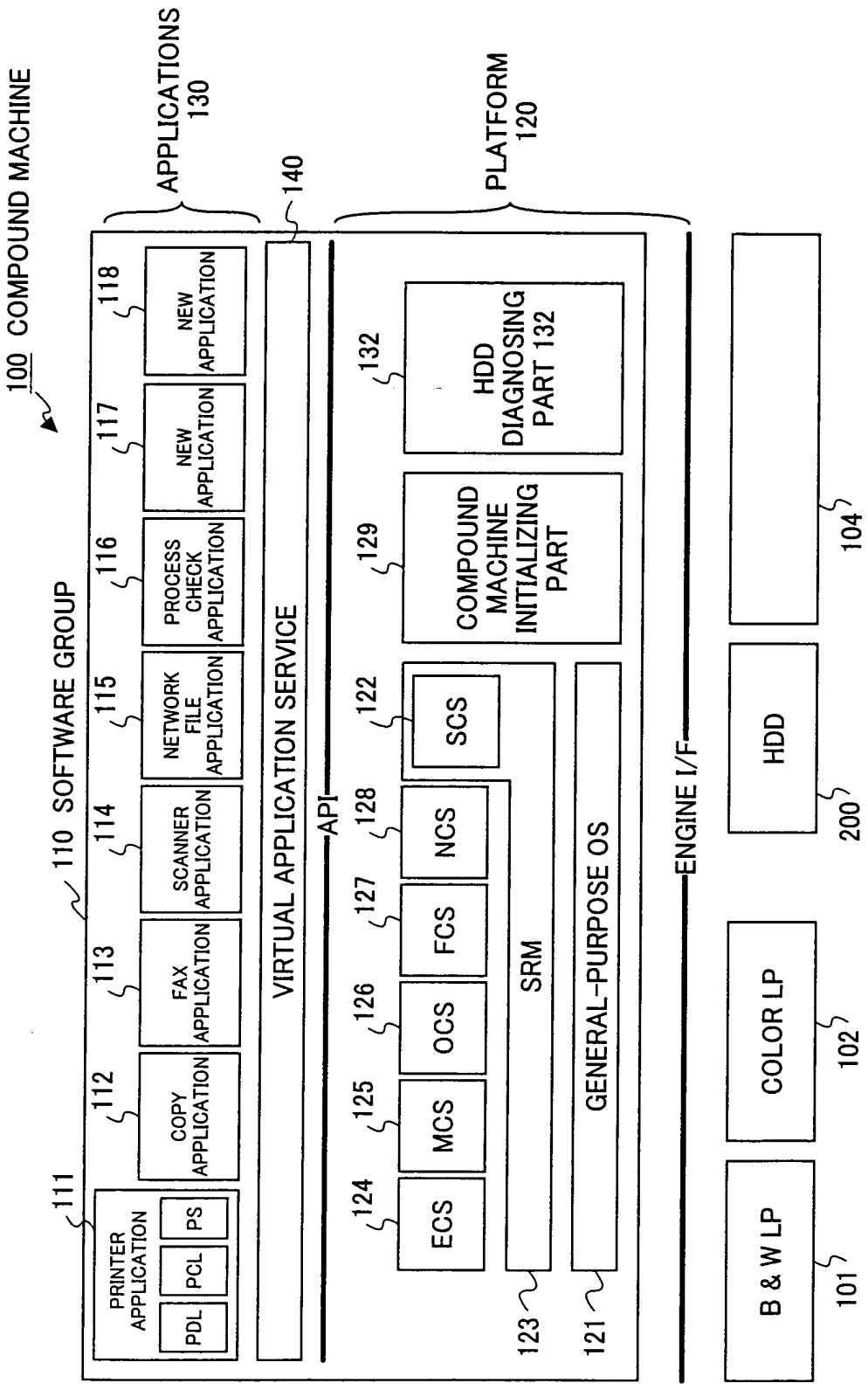

INITIAL SETTING
BASIC SETTING
PAPER SETTING
...
SETTING FOR OPERATOR
LAUNCH OF EXTENSION
LAUNCH
LAUNCH/NOT LAUNCH
LAUNCH SELECTION
http
HDD/IC CARD /http/ftp (CAN SELECT EITHER OR BOTH)
LAUNCH SETTING FILE ASDDRESS
http://www.xxxx.yyyy.launch.conf
ftp://ftp.xxxx.zzzz.launch.conf
BACK
NEXT

FIG.18


100 COMPOUND MACHINE
110 SOFTWARE GROUP
APPLICATIONS 130
PLATFORM 120
140
111
PRINTER APPLICATION
PDL
PCL
PS
112
COPY APPLICATION
113
FAX APPLICATION
114
SCANNER APPLICATION
115
NETWORK FILE APPLICATION
116
PROCESS CHECK APPLICATION
117
NEW APPLICATION
118
NEW APPLICATION
VIRTUAL APPLICATION SERVICE
API
124
ECS
125
MCS
126
OCS
127
FCS
128
NCS
122
SCS
SRM
123
GENERAL-PURPOSE OS
121
129
COMPOUND MACHINE INITIALIZING PART
132
HDD DIAGNOSING PART 132
ENGINE I/F
B & W LP
101
COLOR LP
102
HDD
200
104